

KVD Data Review - A Work in Progress

Addressing the Citizens' Request on Uranium Ore Grades at KVD's PA-3 MW-85



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BRIEFLY:

The results of a research work completed on November 21, 2014 showed that the undisturbed aquifer, baseline ground water quality around the Garcia Hill area reasonably compares to that documented for the area around the city of Kingsville (see 141121GoliadAquifersUoreRadiometricOreGradesAroundKVDsPA-3Area.pptx, attached).

The validity of the computational scheme used in the above research work was clearly demonstrated by showing that there is a match, foot by foot, between the uranium ore grade values obtained by this computational scheme and those submitted to the operator by its consultant, Computer Logging Inc. in 1987. The ore grade values in question belong to the PA-3 Adami #2 (see Table IV in slide 13 of the above referenced PPT file, attached).

A question on the role that Production Area No. 3's (PA-3's) Monitoring Well MW-85 may have played in the surge in uranium concentrations in the ground water in the Garcia Hill (GH) area was brought up by TCEQ. TCEQ's question, it seems, was prompted by the fact that the CPS readings in this well's GR log are higher than those observed in the GR log from the GH W-24 well. We have made an effort to address TCEQ's question by looking at the ore grade values in the MW-85 well.

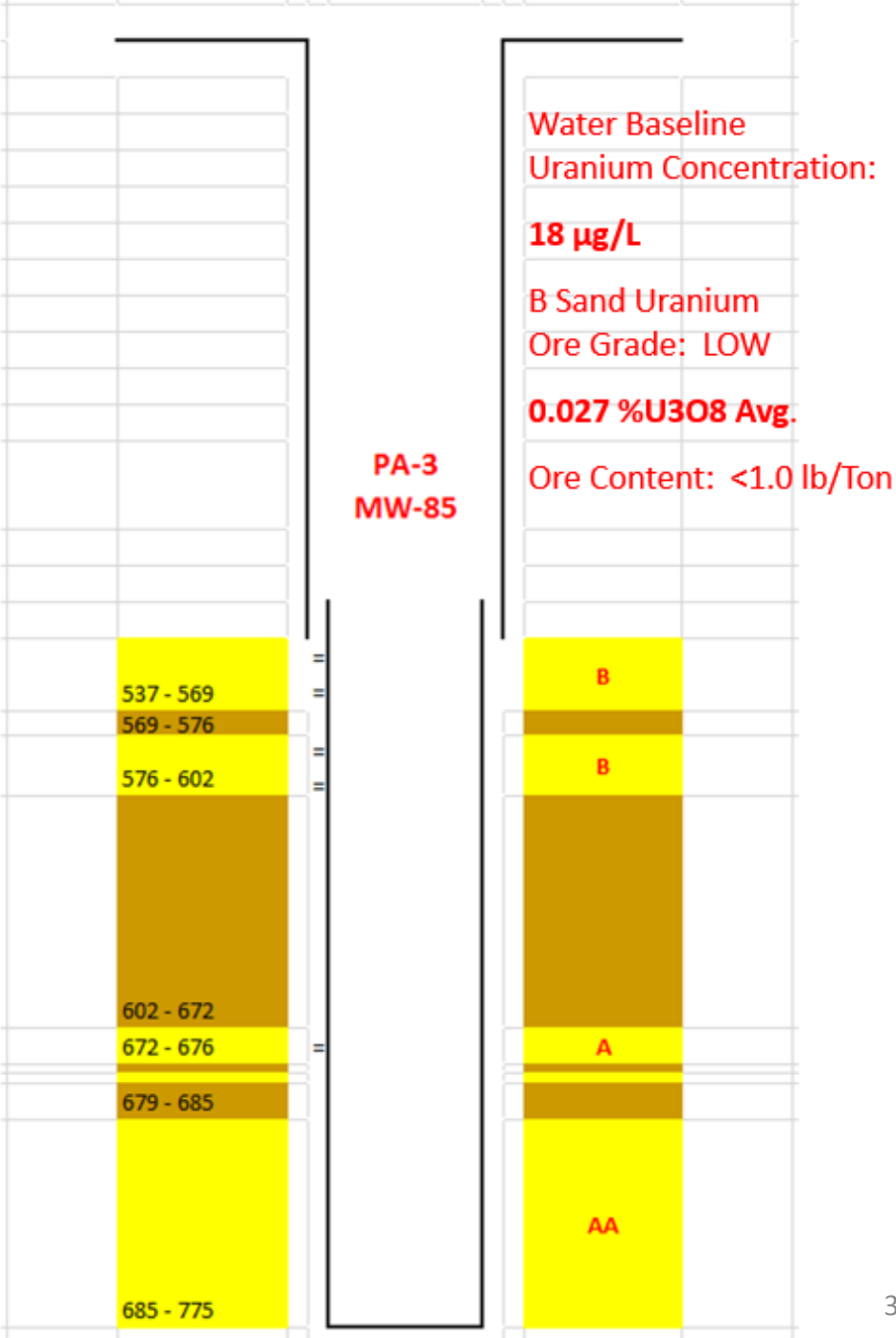
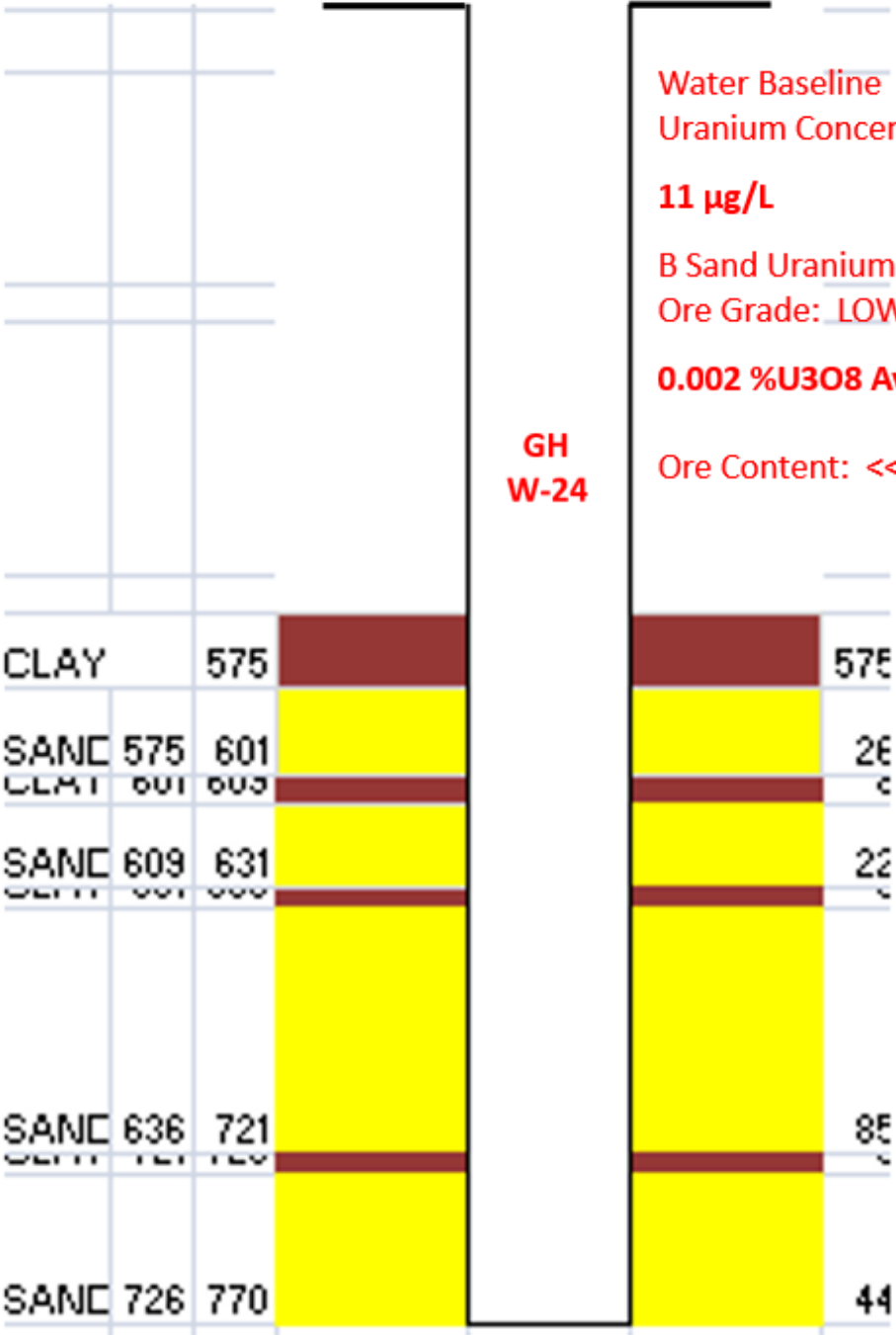
Details on the assays that have been developed for the B and AA sands in the MW-85 well are provided in the slides below. The same Excel computer program that was used for the GH W-24 assay well was used in this case. These assays have been developed in response to a request received by EPA from Kleberg County citizens.

The assay results show low uranium ore grade at the MW-85 well, still well below the threshold for commercial production. These results, along with the baseline ground water quality data for the MW-85 well, show that, like in the case of the W-24 well, it appears unlikely that this well could have, spontaneously, by itself, caused the ground water uranium concentration to surge to nearly 1.0 mg/L, as it has been observed at the GH W-24 well.

Graphs for illustration purposes only.

Not to Scale.

Stratigraphy for GH-24 inferred from well log. No Driller's or Completion Report available for this well.



The two Wells Targeted the same strata.



Century
GEOPHYSICAL CORP.

MM-85

CUSTOMER : URT
WELL : MM-85
LOCATION/FIELD : KUD
COUNTY : KLEBERG
STATE : TEXAS
SECTION :

OTHER SERVICES :

TOWNSHIP : RANGE :

DATE : 01/20/97
DEPTH DRILLER : TNS
CMT DEPTH : 775.38
LOG TOP : 9.94

PERMANENT DATUM : CL
ELEV. PERM. DATUM : CL
LOG MEASURED FROM : CL
OIL MEASURED FROM : CL

ELEVATIONS
KB : N/A
DE : N/A
CL :

CASING DRILLER : B
CASING TYPE :
CASING THICKNESS : B

LOGGING UNIT : 5686
FIELD OFFICE : TULSA
RECORDED BY : B. MAJAS

API SIZE : 5.025
DENSITY BEAL : 8.0
MATRIX DENSITY : 2.65
FLUID DENSITY : 1.0
NEUTRON MATRIX : SENSITIVE
REMARKS :

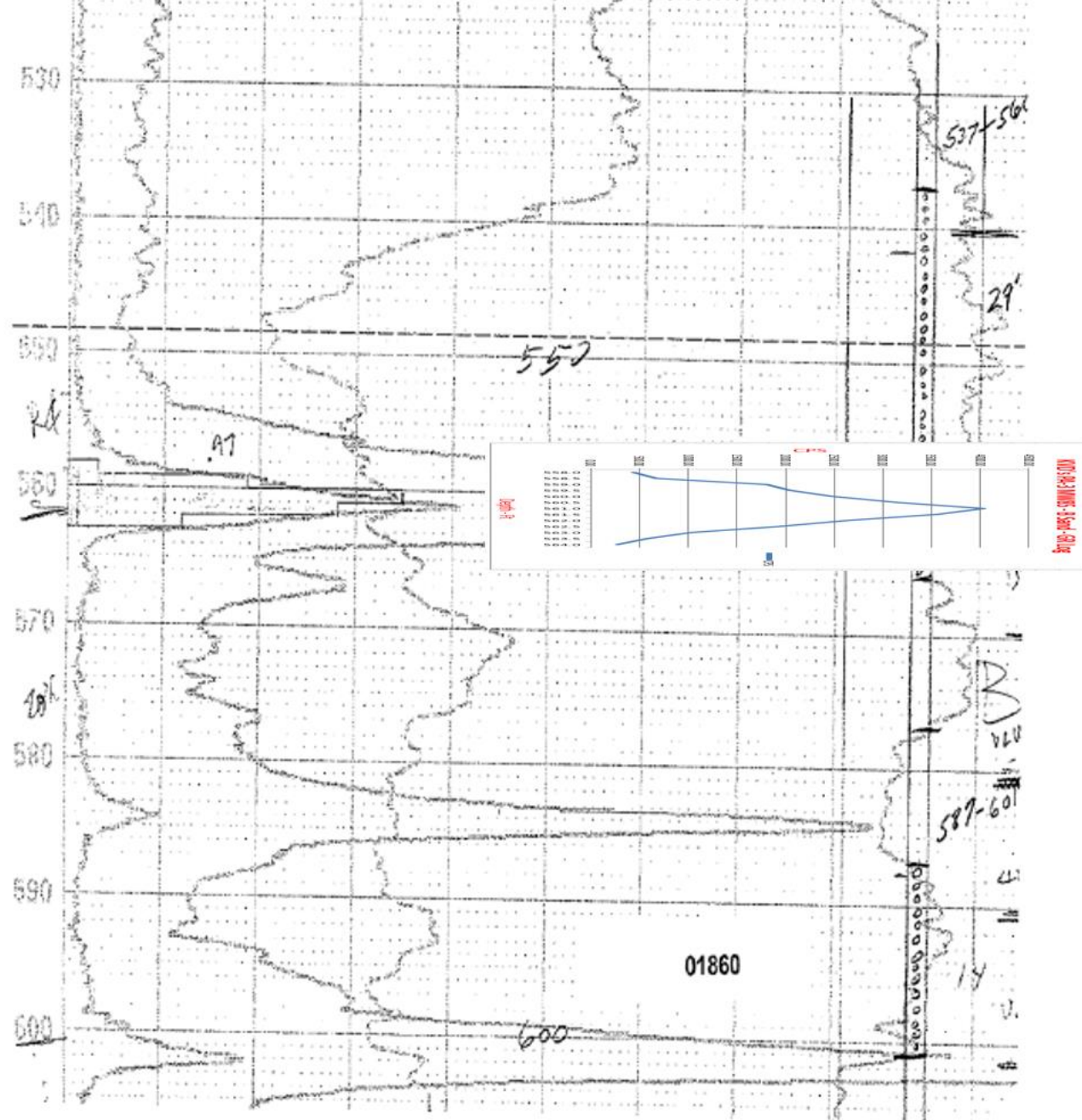
BOREHOLE FLUID : H2O/GEL
AM :
AM TEMPERATURE :
MATRIX FILTER T : 54
FLUID FILTER T : 54

FILE : ORIGINAL
TYPE : OTHER
LOG : 3
PLOT : UPON 3
THRESH : 5000

No Dead Time,
No K Factor
provided with
this log.

Data from
neighboring well
used in Assay.

MW-85
0.018 mg/L



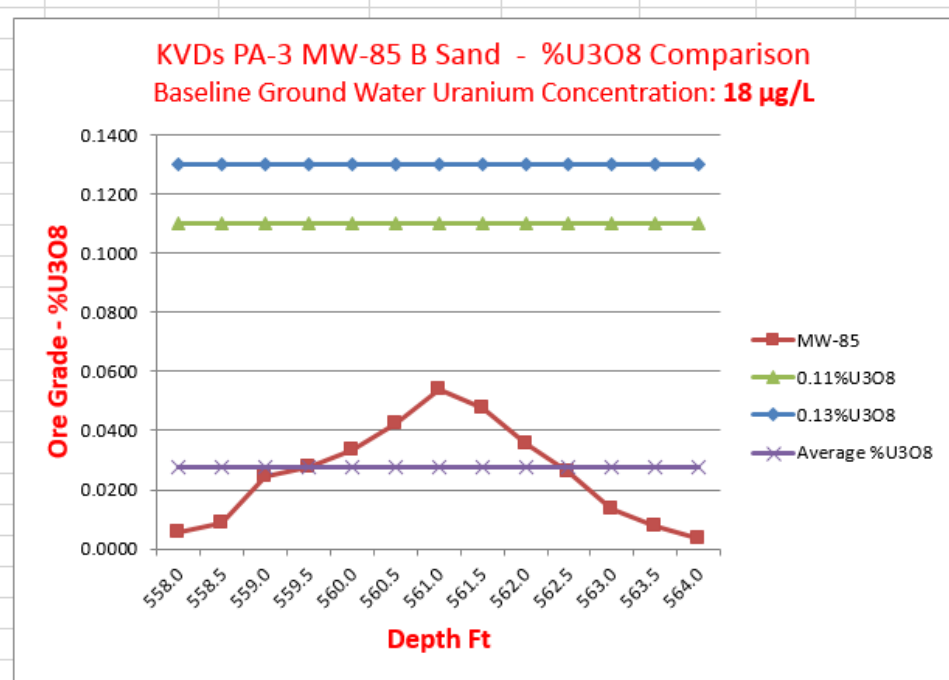
B Sand

Given Data	
Data Entered by Logger	
Calculated Data	
DATE:	01/20/1997
WELL NAME:	KVDs MW-85
LOGGING ENGINEER:	
UNIT No.:	
PROBE No.:	
INTERVAL: Ft	0.5
BIT SIZE: in Inches	5.625
WATER IN HOLE? (Y/N)	y
WATER CORRECTION:	1.16689375
STEEL PIPE IN HOLE? (Y/N)	n
THICKNESS: in Inches	1
STEEL CORRECTION:	1
DEAD TIME:	2.30E-07
K FACTOR:	5.73E-06

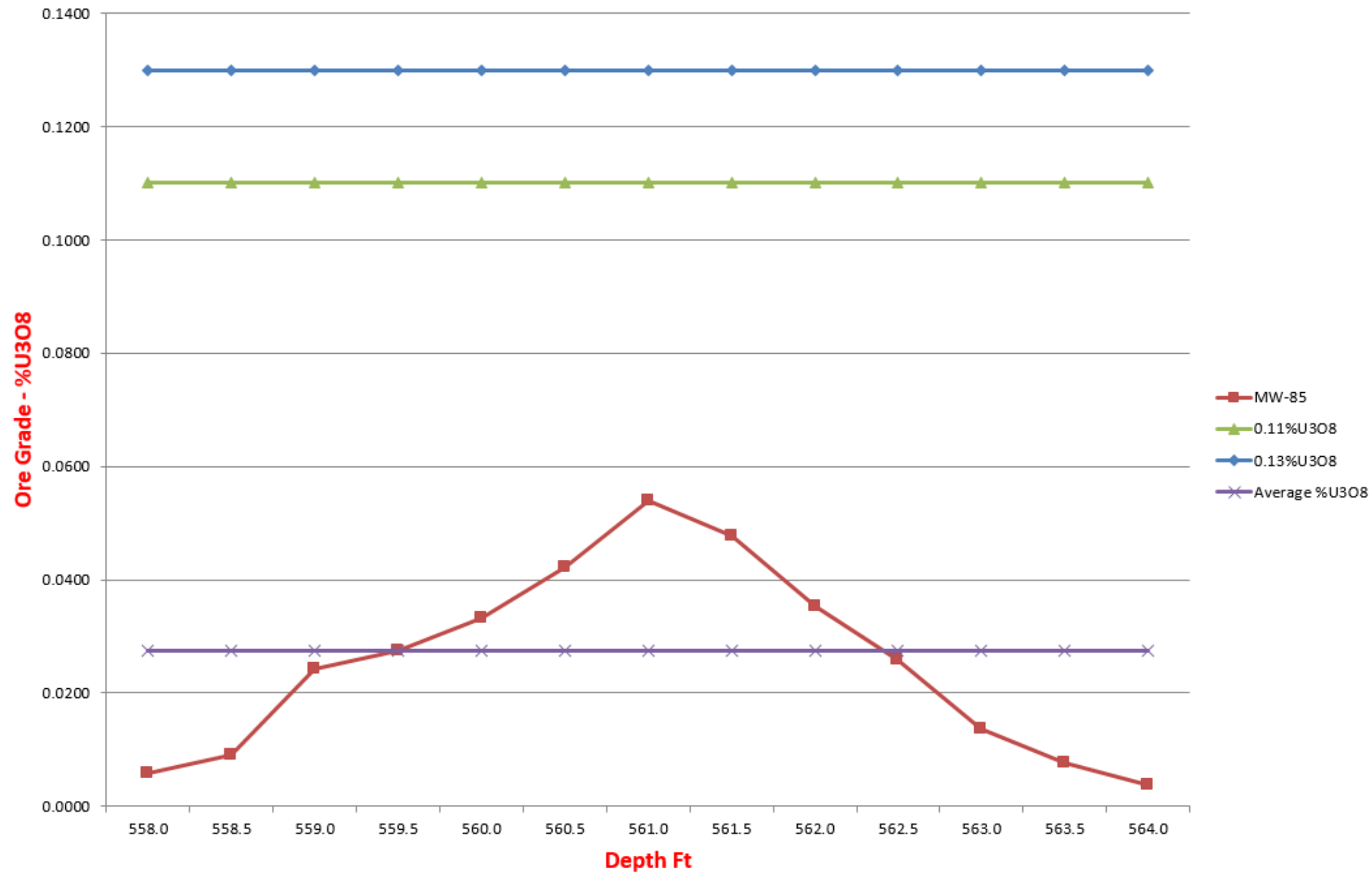
GRADE= 0.027459537 %eU308	
GRADE-THICKNESS= 0.16475722	
Interval Of Interest:	558.00 to 564.00

KVDs PA-3 MW-85 - B Sand

DEPTH	GAMMA-HI CPS PROBE COUNTS	GAMMA-HI CPS, CORRECTED	%U308 RADIOMETRIC GRADE PER UNIT	HOLE SIZE AND WATER CORR. GRADE	STEEL CASING CORRECTED GRADE							
558.00	433.07	433.11	0.0050	0.0058	0.0058	558.0	0.0058	0.11	0.13	0.02746		
558.50	669.29	669.39	0.0077	0.0090	0.0090	558.5	0.0090	0.11	0.13	0.02746		
559.00	1811.02	1811.78	0.0208	0.0242	0.0242	559.0	0.0242	0.11	0.13	0.02746		
559.50	2047.24	2048.21	0.0235	0.0274	0.0274	559.5	0.0274	0.11	0.13	0.02746		
560.00	2480.31	2481.73	0.0284	0.0332	0.0332	560.0	0.0332	0.11	0.13	0.02746		
560.50	3149.61	3151.89	0.0361	0.0421	0.0421	560.5	0.0421	0.11	0.13	0.02746		
561.00	4035.43	4039.18	0.0463	0.0540	0.0540	561.0	0.0540	0.11	0.13	0.02746		
561.50	3562.99	3565.91	0.0409	0.0477	0.0477	561.5	0.0477	0.11	0.13	0.02746		
562.00	2637.80	2639.40	0.0302	0.0353	0.0353	562.0	0.0353	0.11	0.13	0.02746		
562.50	1929.13	1929.99	0.0221	0.0258	0.0258	562.5	0.0258	0.11	0.13	0.02746		
563.00	1023.62	1023.86	0.0117	0.0137	0.0137	563.0	0.0137	0.11	0.13	0.02746		
563.50	570.87	570.94	0.0065	0.00763	0.0076	563.5	0.0076	0.11	0.13	0.02746		
564.00	275.59	275.61	0.0032	0.0037	0.0037	564.0	0.0037	0.11	0.13	0.02746		
AREA		24641.01										
564.00	DEPTH MAX											
558.00	DEPTH MIN											

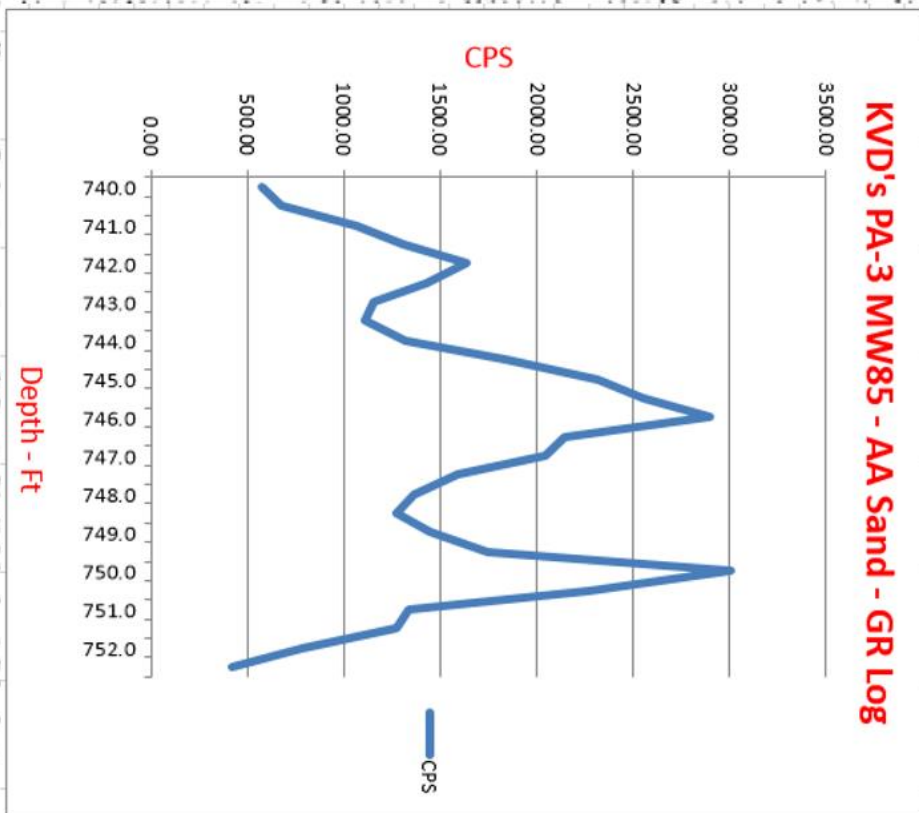
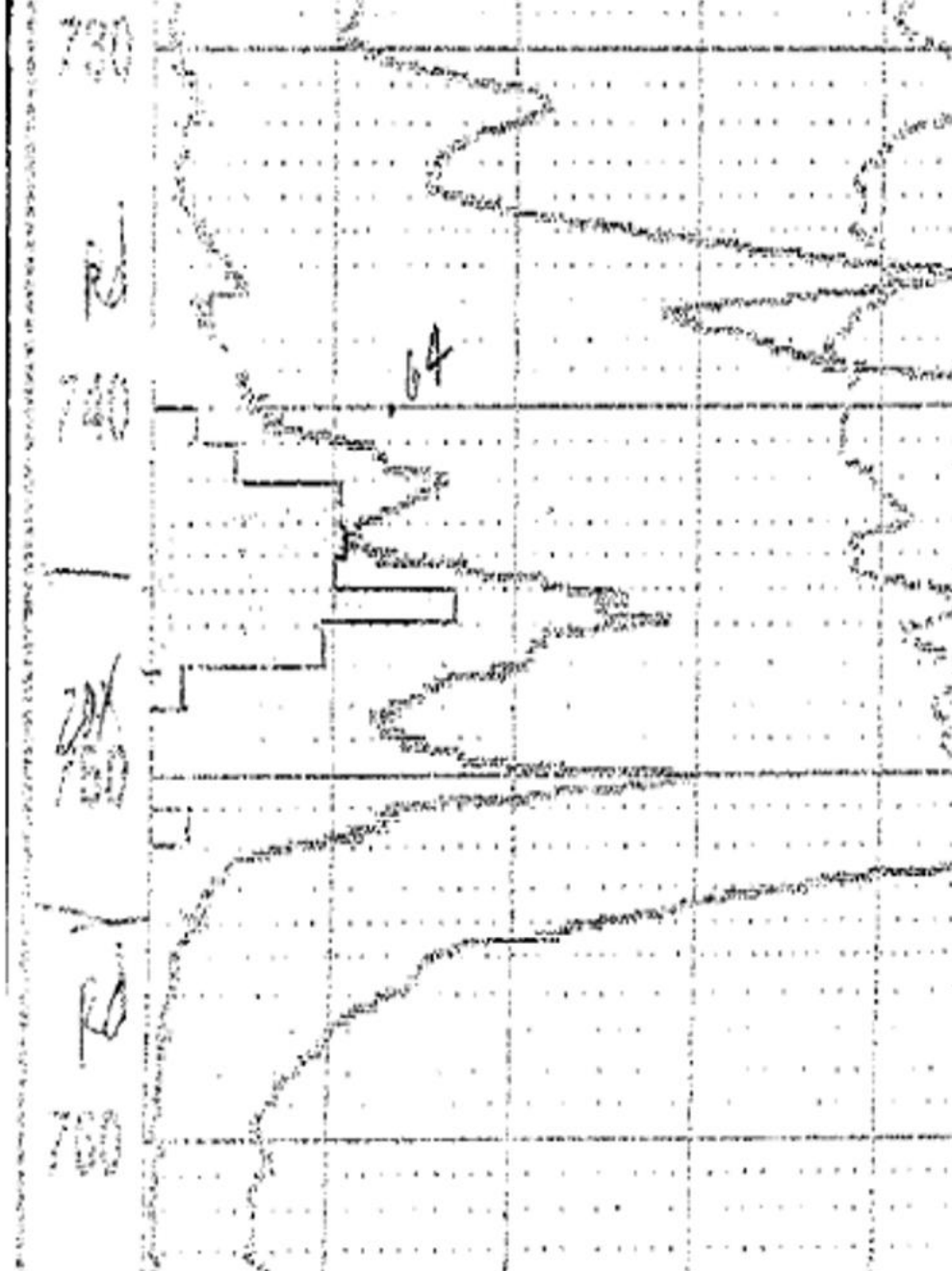


KVDs PA-3 MW-85 B Sand - %U3O8 Comparison
Baseline Ground Water Uranium Concentration: 18 µg/L



MW-85

AA Sand



ORE GRADE AND GRADE-THICKNESS CALCULATION

Background to Background Method

Given Data

Data Entered by Logger

Calculated Data

DATE: 01/20/1997
 WELL NAME: KVDs MW-85
 LOGGING ENGINEER:
 UNIT No.:
 PROBE No.:
 INTERVAL: Ft 0.5
 BIT SIZE: in Inches 5.625
 WATER IN HOLE? (Y/N) y
 WATER CORRECTION: 1.16689375
 STEEL PIPE IN HOLE? (Y/N) n
 THICKNESS: in Inches 1
 STEEL CORRECTION: 1
 DEAD TIME: 2.30E-07
 K FACTOR: 5.73E-06

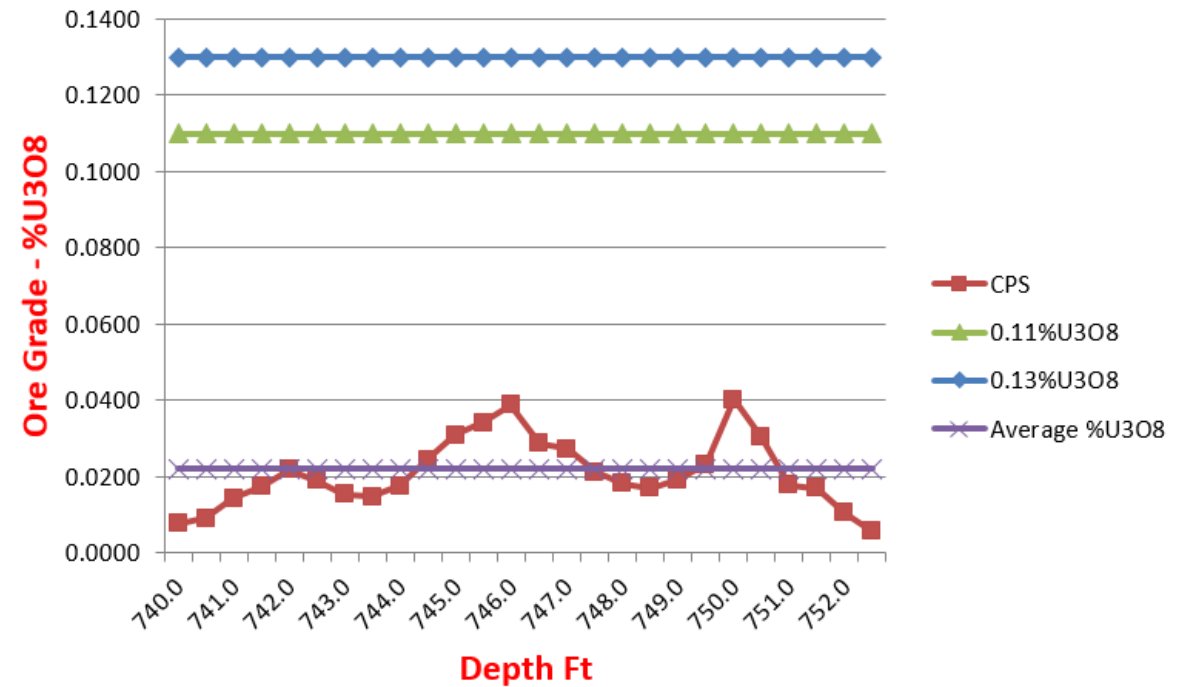
GRADE= 0.02214638 %eU3O8

GRADE-THICKNESS= 0.13287828

Interval Of Interest: 558.00 to 564.00

KVDs PA-3 MW-85 - AA Sand

KVDs PA-3 MW-85 AA Sand - %U3O8 Comparison
 Baseline Ground Water Uranium Concentration: 18 µg/L



[illegible]

KVDs PA-3 MW-85 AA Sand - %U3O8 Comparison

Baseline Ground Water Uranium Concentration: 18 µg/L

